



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,183	08/23/2001	Armin Piur	I36-7001.39	9529

466 7590 10-07/2003

YOUNG & THOMPSON  
745 SOUTH 23RD STREET 2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER
----------

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/914,183	<b>Applicant(s)</b> PIUR, ARMIN	
	<b>Examiner</b> Jenna-Leigh Befumo	<b>Art Unit</b> 1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The Amendment submitted on July 23, 2003, has been entered. Claims 1, 2, and 4 have been amended and claims 5 – 8 have been added. Therefore, the pending claims are 1 – 8.
2. The Amendment to the specification submitted on July 23, 2003, has been entered.
3. The drawings were received on July 23, 2003. These drawings are acceptable.
4. The Amendments to claims 1, 2, and 4 are sufficient to overcome the 35 USC 112 2<sup>nd</sup> paragraph rejections set forth in sections 4 – 10 of the previous Office Action. With regard to the phrase “the warp threads have a thread density so that the weight per unit area of the fabric is equal to the weight per unit area of a fine-mesh fabric which only contains warp and weft threads of the second, finer yarn,” the amendments have clarified this phrase so it is no longer indefinite, however it is sufficiently broad so that theoretically a fine mesh fabric made from a finer yarn would exist with an equal weight per unit area regardless of the thread density. Thus, any fabric made a larger yarn with any thread density would meet this limitation.
5. The 35 USC 102 rejection based on Sakaguchi et al. (US 5,837,624) is withdrawn since Sakaguchi et al. fails to teach a mica paper layer bonded to the glass fabric layer, as is currently claimed.
6. Further, the 35 USC 103 rejection based on Lania et al. (US 3,914,495) in view of Sakaguchi et al. is withdrawn since neither reference discloses a mica paper layer, as is now recited in claim 1. However, new rejections are set forth below.

### ***Claim Rejections - 35 USC § 103***

Art Unit: 1771

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 1 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Markovitz et al. (6,359,232) in view of Sakaguchi et al.

Markovitz et al. discloses a resin-impregnated sheet materials, such as fabrics, paper, and tapes that have been widely employed to form electrical insulation for various electrical equipments and components (column 1, lines 13 – 17). Specifically, the invention is drawn to mica paper tape comprising a prepreg composite material composed of a layer of mica paper and at least one woven backing layer which is impregnated with a resin composition (column 1, lines 33 – 42). And at least one of the backing layers is a woven fabric made from fiberglass (column 1, lines 37 – 38). However, Markovitz et al. fails to teach the structural limitations of the glass fabric used in the mica tape.

Sakaguchi et al. is drawn to a woven glass fabrics used in prepreg laminates. The woven glass fabric weighs between 15 and 30 g/m<sup>2</sup> and the warp yarn is at least 75 denier and thicker than the weft yarn (column 3, lines 5 - 11). More specifically, the linear density of the warp yarn is 1.5 to 2.5 times that of the weft yarn (column 3, lines 13 – 16). As shown in Examples E to G, listed in Table 1, the denier of the warp yarns are about twice as much as the denier of the weft yarns. And in Example G, the number warp yarns is 48 per 25mm, or 19.2 yarns per cm. Sakaguchi et al. discloses that this woven glass cloth, which can be used in prepreg composites, produces an enhanced tear strength without increasing the thickness of the fabric (column 2, lines 54 – 60). Therefore, it would have been obvious to one of ordinary skill in the art to use the glass fabric taught by Sakaguchi et al. for the glass scrim in the mica paper tape taught by

Art Unit: 1771

Markovitz et al. since Sakaguchi et al. discloses that the woven glass fabric can be used in prepreg electrical composites to produce an enhanced tear strength without increasing the thickness of the fabric.

Although Markovitz et al. and Sakaguchi et al. do not teach the edge tear force that the tape is able to withstand, it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. a glass woven fabric with warp yarns that are about twice as thick as the weft yarns, a weight per unit area of between 15 and 30 g/cm<sup>2</sup>, a warp thread density of about 19 yarns per cm, and a mica paper layer) and in the similar production steps (i.e. bonding the mica paper layer to the woven fabric layer) used to produce the insulating prepreg tape. The burden is upon the Applicant to prove otherwise. Therefore, claims 1 – 8 are rejected.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1771


however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo  
September 23, 2003



CHERYL A. ZUSKA  
PRIMARY EXAMINER